

Notes for Table 9.1 - Nationwide Local Service Revenues and New Competitor Share

Source: Industry Analysis Division, *Telecommunications Industry Revenue: TRS Fund Worksheet Data* (rel. Dec. 1994; Feb. 1996; Dec. 1996; and Nov. 1997):

Table 15 - local service revenues of CAPs/CLECs

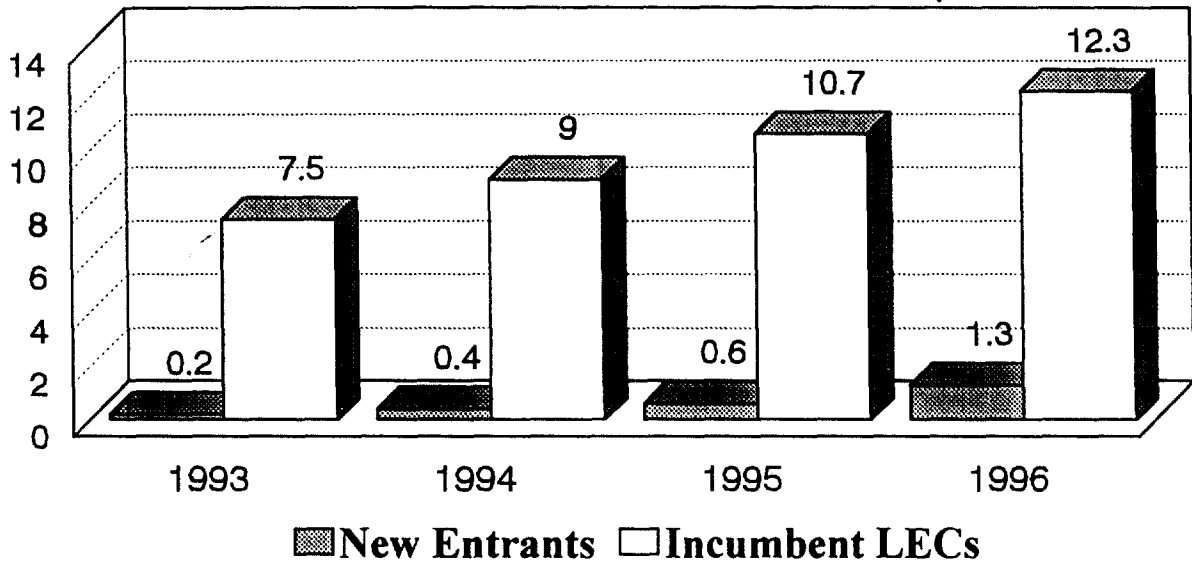
Table 18 or Table 18B - local service revenues of the Bell companies

Table 19 - local service revenues of other incumbent local telephone companies

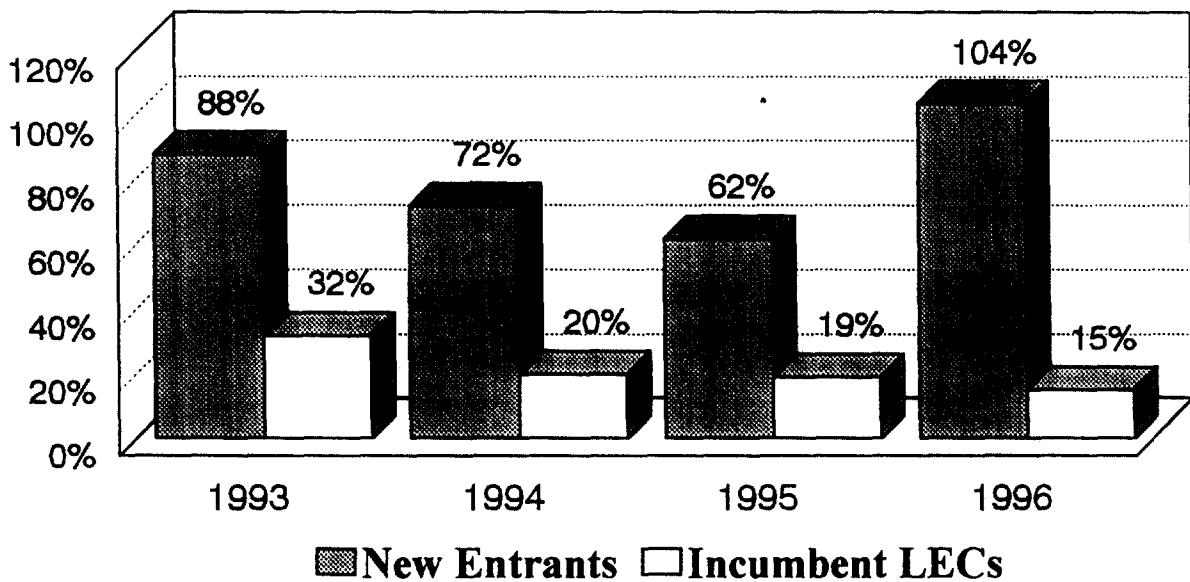
Table 5 and Table 20 - all other local service revenues

- * Local service revenues are here considered to include revenues from local exchange, local private line, and other local services, as well as from interstate and intrastate access services; but not to include revenues from cellular or other mobile services or from toll (i.e., long distance) services.
- ** Calculated using the 1993 (beginning) and 1996 (end point) values.
- *** Legal entities identifying themselves in their annual TRS Fund Worksheet filings as competitive access providers (CAPs)/competitive local exchange carriers (CLECs). The number of legal entities reporting in this category in any particular year is influenced by ownership structure. For example, in 1996, American Communications Systems, Inc. reported as 20 separate legal entities (e.g., American Communications Services of Albuquerque, Inc.; American Communications Services of Maryland, Inc.), and Brooks Fiber Properties, Inc., which is being acquired by long distance carrier WorldCom, reported as 16 separate legal entities (e.g., Brooks Fiber Communications of Arkansas; Brooks Fiber Communications of Bakersfield, Inc.). A number of companies, including GST Telecom, Inc., ICG Communications, Inc., McLeodUSA Incorporated, and Teleport Communications Group, Inc., each reported as a single legal entity, however. A list of the legal entities that reported as CAPs/CLECs in 1996 appears in Industry Analysis Division, *Carrier Locator: Interstate Service Providers* (rel. Nov. 1997).
- # The Bell companies are Ameritech, Bell Atlantic (includes the former NYNEX), BellSouth, SBC (includes the former Pacific Telesis), and U S WEST.
- ## Local service revenues reported by legal entities that identified themselves in their annual TRS Fund Worksheet filings as being principally a long distance carrier (i.e., interexchange carriers, operator service providers, pay telephone providers, prepaid calling card providers, toll resellers, and other carriers) or a wireless carrier (i.e., cellular, personal communications service, paging, and other mobile carriers). Revenues of local service divisions of companies that are not themselves separate legal entities (e.g., MCImetro) are included here.
- ### Not meaningful; reporting of revenues among local and toll categories appears not to be consistent from year to year.

Chart 9.1
Fiber Deployed (Measured by Fiber Miles)
 (Amounts Shown in Millions)



Growth in Fiber Deployed
 (Percent Growth over Prior Year)



Source: Fiber Deployment Update -- End of Year 1996

TABLE 9.2
Competitor Collocation Arrangements
with Incumbent Telephone Companies
(as Reported by Incumbent Companies)

Incumbent Company	Number of Incumbent Telephone Company Central Offices with One or More Collocation Arrangements		Number of Competitors with One or More Collocation Arrangements	
	1995 ¹	1997 ¹	1995 ¹	1997 ¹
Ameritech ²	16	87	5	11
Bell Atlantic ³	19	98	5	14
BellSouth ⁴	15	124	13	17
GTE ⁵	32	53	9	17
NYNEX ⁶	41	78	10	12
Pacific Telesis ⁷	42	82	9	16
SBC ⁸	9	32	5	8
U S WEST ⁹	2	57	2	11

Notes to Table 9.2 appear on the following page.

Notes for Table 9.2 - Competitor Collocation Arrangements with Incumbent Telephone Companies (as Reported by Incumbent Companies)

Source: Incumbent local telephone company ex parte filings in CC Docket No. 91-141, *In the Matter of Expanded Interconnection with Local Telephone Company Facilities*.

- 1/ In 1995, reports were filed in June, except Ameritech filed in July. In 1997, reports were filed in June or July, except NYNEX filed in February, and Ameritech filed in December. In those cases where more precise effective dates of data were indicated, such dates were within a month of the date of the filing.
- 2/ In addition to 16 central offices with at least one "operational" collocation arrangement in 1995, Ameritech reported an additional 55 distinct central offices with at least one "installed or pending" collocation arrangement. Eight competitors were associated with one or more of the installed or pending arrangements, including each of the 5 competitors that were associated with at least one operational arrangement. In addition to 87 offices with at least one operational arrangement in 1997, Ameritech reported an additional 16 distinct offices with at least one installed or pending arrangement.
- 3/ In 1995, Bell Atlantic reported 19 central offices with at least one "operational" collocation arrangement. An additional 44 arrangements were "pending" in 1995, but Bell Atlantic did not specify in which central offices these arrangements were located. The 1997 filing refers to collocation arrangements in use, without further elaboration.
- 4/ In addition to 15 central offices with at least one "completed" collocation arrangement in 1995, BellSouth reported an additional 35 distinct central offices with at least one collocation arrangement "in progress." All competitors who had "requested" at least one collocation arrangement were reported in 1995, so it is not clear which of the 13 reported competitors had operational collocation arrangements at that time. The 1997 filing refers to collocation arrangements in use, without further elaboration.
- 5/ GTE reported central offices with "requests" for collocation arrangements in 1995, and central offices in which collocation arrangements were being "taken under tariff" in 1997. In each reporting year, GTE Telecom, Inc., a long distance carrier affiliated with GTE, is among the entities requesting or using collocation arrangements.
- 6/ NYNEX referred to "actual" and "under construction" collocation arrangements in its 1995 filing, and reported no arrangements under construction at that time. In its 1997 filing, which was made several months in advance of the filings of the other companies, NYNEX reported 43 central offices with at least one operational collocation arrangement, and reported an additional 35 distinct central offices in which at least one collocation arrangement was under construction. No distinction was made between competitors with operational *versus* under construction arrangements.
- 7/ Pacific Telesis reported 42 California central offices with collocation arrangements "in service" in 1995. SBC reported 3 Nevada and 79 California central offices with collocation arrangements "in service" in 1997. In 1995, an additional 36 distinct California central offices were reported as being tariffed for collocation arrangements, but as not having any collocation arrangements in service. SBC reported 1 such Nevada central office in 1997, and 50 such California offices.

- 8/ In addition to 9 central offices with at least one "operational" collocation arrangement, SBC reported an additional 11 distinct Southwestern Bell Telephone Company central offices with at least one collocation arrangement "pending completion" in 1995. Seven competitors were associated with one or more of the arrangements pending completion, including each of the 5 competitors that were associated with at least one operational arrangement. In 1997, SBC reported 32 operational collocation arrangements, only.
- 9/ In both 1995 and 1997 filings, U S WEST refers to customers "using" collocation arrangements and to central offices in which customers "are located," without further elaboration.

LONG DISTANCE CARRIERS:

Carrier identification codes provide information on the number of firms seeking to acquire certain types of interconnecting arrangements with local telephone companies. Any firm that seeks to use trunk-side connections with local telephone companies is provided a carrier identification code so that traffic can be efficiently routed.

Beginning in 1986, a number of corporations, government agencies and other organizations began to acquire carrier identification codes for their own use, rather than for the purpose of providing telecommunications services to others. After that time, the use of such codes to estimate the number of long distance carriers became less reliable. We believe, however, that the number of firms obtaining these codes provides the best information available on the entry of new firms into the long distance market prior to 1986. The number of codes assigned is shown in Table 10.1.

Carrier identification codes are currently assigned by Lockheed Martin IMS. Further information on such codes can be found on the internet at <http://www.nanpa.com> on the World Wide Web.

The number of long distance carriers more than tripled from 1986 to 1996. Table 10.2 shows the number of long distance carriers by state. The information for 1986-1988 was summarized from information supplied to the Commission by the Bell operating companies on companies purchasing equal access from them. The information for 1989-1996 comes from the National Exchange Carrier Association's database on presubscribed lines. Combining these two databases may result in some discontinuity between 1988 and 1989.

Table 10.3 shows several alternative measures of long distance carrier development.

TABLE 10.1
NUMBER OF CARRIER IDENTIFICATION CODES (CICS)
ASSIGNED BY
BELL COMMUNICATIONS RESEARCH
1982 - 1992

YEAR	QUARTER	NUMBER OF CICS ASSIGNED	YEAR	QUARTER	NUMBER OF CICS ASSIGNED
1982	FIRST QUARTER	11	1988	FIRST QUARTER	602
	SECOND QUARTER	13		SECOND QUARTER	621
	THIRD QUARTER	13		THIRD QUARTER	601
	FOURTH QUARTER	11		FOURTH QUARTER	639
1983	FIRST QUARTER	15	1989	FIRST QUARTER	685
	SECOND QUARTER	25		SECOND QUARTER	714
	THIRD QUARTER	33		THIRD QUARTER	730
	FOURTH QUARTER	42		FOURTH QUARTER	747
1984	FIRST QUARTER	54	1990	FIRST QUARTER	774
	SECOND QUARTER	86		SECOND QUARTER	794
	THIRD QUARTER	121		THIRD QUARTER	817
	FOURTH QUARTER	155		FOURTH QUARTER	791
1985	FIRST QUARTER	182	1991	FIRST QUARTER	745
	SECOND QUARTER	212		SECOND QUARTER	766
	THIRD QUARTER	236		THIRD QUARTER	783
	FOURTH QUARTER	256		FOURTH QUARTER	807
1986	FIRST QUARTER	276	1992	FIRST QUARTER	786
	SECOND QUARTER	331		SECOND QUARTER	831
	THIRD QUARTER	361		THIRD QUARTER	840
	FOURTH QUARTER	413		FOURTH QUARTER	886
1987	FIRST QUARTER	444			
	SECOND QUARTER	495			
	THIRD QUARTER	530			
	FOURTH QUARTER	573			

NUMBER OF CARRIER IDENTIFICATION CODES (CICS)
ASSIGNED BY
BELL COMMUNICATIONS RESEARCH
1993 - 1997

YEAR	QUARTER	FGB	FGD
1993	FIRST QUARTER	694 **	709
	SECOND QUARTER	738	746
	THIRD QUARTER	739	760
	FOURTH QUARTER	753	796
1994	FIRST QUARTER	781	815
	SECOND QUARTER	795	845
	THIRD QUARTER	805	899***
	FOURTH QUARTER	819	947
1995	FIRST QUARTER	829	1,016
	SECOND QUARTER	832	1,082
	THIRD QUARTER	843	1,146
	FOURTH QUARTER	852	1,209
1996	FIRST QUARTER	865	1,253
	SECOND QUARTER	876	1,300
	THIRD QUARTER	875	1,315
	FOURTH QUARTER	878	1,337
1997	FIRST QUARTER	882	1,395
	SECOND QUARTER	896	1,427
	THIRD QUARTER	908	1,481

* CONVERSION FROM 2-DIGIT CODES TO 3-DIGIT CODES.

** CONVERSION FROM 3-DIGIT CODES TO 4-DIGIT CODES.

*** INCLUDES BOTH 3-DIGIT CODES AND 4-DIGIT CODES.

TABLE 10.2
NUMBER OF LONG DISTANCE CARRIERS BY STATE

STATE	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
ALABAMA	13	15	15	15	12	17	17	17	30	45	68
ALASKA	*	*	*	2	2	2	2	2	2	2	2
ARIZONA	18	16	19	23	28	30	38	46	50	70	95
ARKANSAS	6	7	9	15	16	14	15	17	23	39	64
CALIFORNIA	22	22	32	30	34	40	54	61	63	81	100
COLORADO	19	20	24	25	27	32	37	42	56	72	96
CONNECTICUT	*	*	*	17	13	13	18	23	34	46	65
DELAWARE	4	4	4	13	20	24	27	28	38	54	70
DISTRICT OF COLUMBIA	13	20	25	22	21	21	20	20	26	24	24
FLORIDA	20	23	26	25	27	57	57	44	86	117	154
GEORGIA	14	19	19	20	19	38	41	29	60	78	108
HAWAII	*	*	*	6	8	33	9	11	15	20	31
IDAHO	7	7	10	13	11	16	18	24	28	40	56
ILLINOIS	19	23	28	26	26	30	32	42	56	70	108
INDIANA	15	15	21	19	22	21	19	21	27	36	83
IOWA	9	9	11	17	13	16	17	18	26	42	67
KANSAS	14	14	18	15	12	16	16	18	26	44	72
KENTUCKY	11	10	17	20	19	21	20	20	29	48	81
LOUISIANA	20	18	21	22	23	30	35	27	48	66	97
MAINE	4	6	5	8	9	10	9	14	20	31	61
MARYLAND	12	13	18	25	23	22	23	24	31	29	30
MASSACHUSETTS	10	8	17	15	17	18	20	24	34	56	91
MICHIGAN	14	13	20	22	22	29	26	36	37	60	88
MINNESOTA	14	14	21	24	22	22	24	26	37	53	78
MISSISSIPPI	6	9	14	16	15	16	15	14	22	46	66
MISSOURI	20	21	26	22	19	23	28	26	39	56	90
MONTANA	6	4	5	11	10	10	18	21	24	33	51
NEBRASKA	11	10	12	18	18	15	16	13	20	33	57
NEVADA	7	9	14	17	15	19	19	18	25	26	52
NEW HAMPSHIRE	3	5	6	8	10	10	11	15	23	34	65
NEW JERSEY	20	20	26	30	33	38	38	46	65	87	113
NEW MEXICO	5	6	13	20	22	25	28	30	37	48	66
NEW YORK	22	22	27	28	30	36	38	46	68	99	128
NORTH CAROLINA	12	10	14	15	13	19	24	14	33	38	73
NORTH DAKOTA	6	6	8	10	12	12	15	17	22	29	49
OHIO	16	17	23	27	27	31	27	26	38	60	75
OKLAHOMA	12	14	16	20	21	27	29	32	45	59	88
OREGON	19	16	13	17	17	26	33	34	38	58	77
PENNSYLVANIA	18	26	30	34	31	31	45	50	59	84	112
RHODE ISLAND	8	7	8	12	11	13	14	18	21	31	63
SOUTH CAROLINA	7	7	10	14	13	22	24	24	25	42	63
SOUTH DAKOTA	4	4	6	13	9	10	12	19	25	39	50
TENNESSEE	14	15	20	27	26	32	29	28	48	74	106
TEXAS	50	64	74	68	63	74	82	98	110	121	159
UTAH	10	9	15	17	16	18	20	28	36	55	68
VERMONT	3	5	6	7	8	8	9	15	18	29	51
VIRGINIA	9	11	12	23	21	24	23	23	31	38	58
WASHINGTON	19	15	15	22	23	35	37	39	42	62	86
WEST VIRGINIA	6	5	7	13	10	12	14	13	17	22	32
WISCONSIN	25	25	27	29	28	25	23	20	25	38	79
WYOMING	6	4	5	8	7	10	13	16	23	34	45
UNITED STATES	210	239	266	302	320	383	408	429	506	579	616
NORTHERN MARIANA ISL.	*	*	*	*	*	*	*	2	2	2	3
PUERTO RICO	*	*	*	1	10	10	10	8	10	10	9
VIRGIN ISLANDS	*	*	*	1	1	1	6	6	5	5	5
GRAND TOTAL	210	239	266	302	325	388	414	436	511	583	621

TABLE 10.3

ALTERNATIVE MEASURES OF LONG DISTANCE CARRIER DEVELOPMENT

YEAR	MONTH	CARRIERS WITH PRESUBSCRIBED LINES	CARRIERS PURCHASING EQUAL ACCESS 1/	FIRMS WITH CARRIER IDENTIFICATION CODES	FIRMS PURCHASING ACCESS	CARRIERS FILING TRS FORM 2/
1986	MARCH	.	169	231	.	.
	JUNE	.	183	276	.	.
	SEPTEMBER	.	190	302	506	.
	DECEMBER	.	210	334	533	.
1987	MARCH	.	211	360	561	.
	JUNE	.	213	397	.	.
	SEPTEMBER	.	224	421	.	.
	DECEMBER	223	239	451	540	.
1988	MARCH	.	238	471	511	.
	JUNE	242	248	489	519	.
	SEPTEMBER	.	256	464	506	.
	DECEMBER	253	266	493	510	.
1989	MARCH	.	274	520	519	.
	JUNE	276	287	544	.	.
	SEPTEMBER	.	304	560	.	.
	DECEMBER	302	318	577	514	.
1990	MARCH	.	289	594	512	.
	JUNE	314	288	611	506	.
	SEPTEMBER	.	304	636	511	.
	DECEMBER	325	304	601	499	.
1991	MARCH	.	306	571	505	.
	JUNE	355	327	597	542	.
	SEPTEMBER	.	337	605	538	.
	DECEMBER	388	351	631	576	.
1992	MARCH	.	361	616	595	.
	JUNE	425	370	659	577	.
	SEPTEMBER	.	379	654	587	.
	DECEMBER	414	394	692	599	.
1993	MARCH	.	.	.	.	.
	JUNE	412	401	.	.	.
	SEPTEMBER	.	401	.	.	.
	DECEMBER	436	420	.	.	321
1994	MARCH	.	433	.	.	.
	JUNE	454	444	.	.	.
	SEPTEMBER	.	458	.	.	.
	DECEMBER	511	465	.	.	366
1995	MARCH	.	.	.	.	.
	JUNE	549	.	.	.	.
	SEPTEMBER	.	.	.	.	.
	DECEMBER	583	.	.	.	453
1996	MARCH	.	.	.	.	.
	JUNE	582	.	.	.	.
	SEPTEMBER	.	.	.	.	.
	DECEMBER	621	.	.	.	562

* DATA NOT AVAILABLE

1/ DATA FOR THE PERIODS PRIOR TO MARCH 1990 INCLUDE A SMALL NUMBER OF FIRMS PURCHASING EQUAL ACCESS THAT WERE NOT CARRIERS.

2/ INCLUDES INTEREXCHANGE CARRIERS, OPERATOR SERVICE PROVIDERS, OTHER TOLL CARRIERS, PAY CARD PROVIDER AND RESELLERS.

LONG DISTANCE MARKET SHARES:

1. Minutes of Interstate Calling

Measures of switched access minutes first became available in 1984. Such information is publicly available for the total industry and for AT&T but not for other long distance carriers. Thus, access minutes can be used to compute a market share for AT&T but not for smaller carriers.

Column 1 of Table 11.1 shows total interstate switched access minutes (which includes international) reported for all long distance carriers by the National Exchange Carrier Association (NECA). Interstate calling has grown steadily, with access minutes more than tripling, since this data was first measured in the third quarter of 1984. Overall economic growth, price reductions, and extensive advertising have contributed to this growth.

With few exceptions, terminating access minutes, which do not include dialing and call set-up time, equal long distance conversation minutes. Table 11.1, Column 2, shows the number of terminating interstate access minutes reported for all long distance carriers by NECA since 1986, when terminating minutes were first reported separately.

Columns 3 and 4 of Table 11.1 show AT&T's reported total access minutes and terminating access minutes. Columns 5 and 6 show the company's market share of total access minutes and terminating access minutes. Since mid-1984, AT&T's traffic has grown at a slower rate than the industry average: its minutes have doubled during that period while the minutes for other carriers have increased ten fold. As a result, AT&T's share of long distance access minutes has fallen sharply.

2. Presubscribed Lines

A telephone line is said to be presubscribed to the long distance carrier that receives the ordinary long distance calls placed on that line. Where equal access is available, each customer is asked to choose a long distance carrier. Thereafter, all of the customer's long distance calls will be routed to the chosen long distance carrier unless the customer alters normal dialing procedure -- for example, by dialing special codes to access an alternate long distance carrier. Where equal access is not yet available, the use of long distance carriers other than AT&T usually requires alternative dialing procedures.

In the past, NECA provided information on the number of lines presubscribed to each long distance carrier. NECA collected the information from each local telephone company in order to comply with previous FCC rules that required NECA to recover certain expenses from the larger long distance carriers. This information is shown in Table 11.2. Following passage of the Telecommunications Act of 1996, the FCC changed its universal service rules, which previously

required the collection of this information. As a result, information for December 1996 is the last presubscribed line data collected by NECA.

NECA reports that, at the end of 1996, there were 159 million presubscribed lines in the United States. Special access lines, WATS lines, and other specialized lines are not included in the counts of presubscribed lines. The number of lines presubscribed to AT&T has remained roughly constant while the number of lines presubscribed to other carriers has grown. Table 11.3 shows that at the end of 1996, about 63% of these lines were presubscribed to AT&T, 15% to MCI, 7% to Sprint, and about 3% to Worldcom. About six hundred smaller carriers, serving almost 19 million lines, account for the remaining 12% of the industry. Table 11.4 shows the annual rates of growth for presubscribed lines from December 1988 to December 1996. Table 11.5 shows the market share of presubscribed lines by state for AT&T, MCI, Sprint, WorldCom and Excel.

3. Toll Revenues

The largest long distance telephone companies are required to report their annual revenues to the FCC. The revenues for reporting carriers and the total industry are shown in Table 11.6, and include both interstate and intrastate revenues. Table 11.7 shows market shares based on annual revenues for long distance carriers. Market shares for all competitors in the long distance market (including both long distance companies and local companies) are shown in Table 11.8.

In 1996, services provided by long distance carriers generated about \$82 billion in revenues. During the past few years, revenues have grown at a far slower pace than the volume of long distance calling because of sharp price cuts. In 1984, AT&T's toll revenues of \$35 billion accounted for 90% of the revenues received by all long distance carriers. By 1996, with its revenues having increased by 12%, its share of total revenues had fallen to 48%.

Chart 11.1 compares alternative measures of AT&T's market share using minutes, lines, and revenues. In this chart, a second measure of revenues has been added. The alternative measure is based on financial reports to stockholders. Revenues reported to the FCC usually differ from revenues reported to stockholders. The largest differences tend to relate to the treatment of access charges and international settlements, which accounts for the difference between the annual revenue share points labeled "FCC" and the revenue share line labeled "SEC."

TABLE 11.1

**INTERSTATE SWITCHED ACCESS MINUTES
(FIGURES SHOWN IN BILLIONS)**

	TOTAL INDUSTRY		AT&T		AT&T'S SHARE OF	
	ACCESS MINUTES	TERMINATING MINUTES	ACCESS MINUTES	TERMINATING MINUTES	ACCESS MINUTES	TERMINATING MINUTES
1985 FIRST QUARTER	39.6		32.8	19.0	83.0	
SECOND QUARTER	41.5		33.3	19.2	80.3	
THIRD QUARTER	42.8		33.8	19.4	78.9	
FOURTH QUARTER	43.3		33.4	19.2	77.1	
TOTAL 1985	167.1		133.3	77.0		
1986 FIRST QUARTER	43.0		34.2	19.9	79.5	
SECOND QUARTER	44.8		34.7	20.2	77.5	
THIRD QUARTER	46.7	26.7	35.8	20.7	76.6	77.7 %
FOURTH QUARTER	48.5	27.6	35.9	20.6	74.0	74.7
TOTAL 1986	183.1		140.6	81.5		
1987 FIRST QUARTER	51.2	28.9	37.4	21.4	72.9	74.2
SECOND QUARTER	52.5	29.7	38.6	22.1	73.7	74.2
THIRD QUARTER	55.0	30.9	39.2	22.3	71.2	72.1
FOURTH QUARTER	57.0	32.3	40.1	22.6	70.4	70.1
TOTAL 1987	215.7	121.8	155.3	88.4		
1988 FIRST QUARTER	59.0	33.4	41.2	23.3	69.8	69.9
SECOND QUARTER	59.6	33.6	41.1	23.0	69.0	68.5
THIRD QUARTER	62.1	34.9	42.3	23.6	68.2	67.6
FOURTH QUARTER	64.0	35.9	43.0	23.6	67.2	65.8
TOTAL 1988	244.6	137.8	167.6	93.6		
1989 FIRST QUARTER	66.2	37.3	44.2	24.5	66.8	65.7
SECOND QUARTER	68.5	38.1	44.4	24.5	64.8	64.4
THIRD QUARTER	69.7	38.6	44.9	24.7	64.4	64.1
FOURTH QUARTER	72.6	40.0	46.4	25.3	63.9	63.3
TOTAL 1989	277.1	153.9	179.9	99.0		
1990 FIRST QUARTER	74.7	41.2	47.1	25.8	63.0	62.5
SECOND QUARTER	75.8	41.9	47.1	25.7	62.1	61.5
THIRD QUARTER	77.9	43.4	48.7	26.4	62.5	60.9
FOURTH QUARTER	79.1	43.1	49.8	27.8	63.0	64.5
TOTAL 1990	307.4	169.6	192.6	105.8		
1991 FIRST QUARTER	79.2	43.4	49.9	27.1	63.0	62.4
SECOND QUARTER	81.9	44.9	50.5	26.8	61.7	59.6
THIRD QUARTER	82.6	45.1	51.2	27.1	61.9	60.1
FOURTH QUARTER	84.4	46.4	52.4	27.9	62.1	60.0
TOTAL 1991	328.0	179.8	204.0	108.8		

TABLE 11.1

**INTERSTATE SWITCHED ACCESS MINUTES
(FIGURES SHOWN IN BILLIONS)**

	TOTAL INDUSTRY		AT&T		AT&T'S SHARE OF	
	ACCESS MINUTES	TERMINATING MINUTES	ACCESS MINUTES	TERMINATING MINUTES	ACCESS MINUTES	TERMINATING MINUTES
1992 FIRST QUARTER	85.6	47.7	53.3	28.6	62.2 %	59.9 %
SECOND QUARTER	86.5	48.2	51.9	27.9	60.0	57.8
THIRD QUARTER	87.9	49.1	53.0	28.4	60.3	57.9
FOURTH QUARTER	89.8	50.4	53.5	28.8	59.7	57.1
TOTAL 1992	349.7	195.4	211.7	113.6		
1993 FIRST QUARTER	90.6	51.0	55.5	29.7	61.3	58.1
SECOND QUARTER	91.2	51.9	55.0	29.9	60.3	57.6
THIRD QUARTER	93.6	54.8	56.3	31.4	60.2	57.2
FOURTH QUARTER	95.9	56.4	56.8	31.9	59.3	56.6
TOTAL 1993	371.2	214.1	223.6	122.8		
1994 FIRST QUARTER	98.7	58.2	59.0	31.4	59.8	53.9
SECOND QUARTER	97.9	58.3	57.7	31.1	59.0	53.3
THIRD QUARTER	101.9	60.9	58.5	32.6	57.4	53.5
FOURTH QUARTER	102.9	62.0	59.5	33.3	57.9	53.6
TOTAL 1994	401.4	239.4	234.7	128.3		
1995 FIRST QUARTER	105.6	63.8	59.9	33.6	56.7	52.7
SECOND QUARTER	106.8	64.7	59.3	33.5	55.5	51.8
THIRD QUARTER	109.0	66.7	59.8	34.4	54.8	51.6
FOURTH QUARTER	110.6	67.5	60.8	34.6	55.0	51.2
TOTAL 1995	431.9	262.7	239.8	136.1		
1996 FIRST QUARTER	115.7	71.2	62.4	35.9	54.0	50.5
SECOND QUARTER	114.7	71.5	60.2	35.1	52.4	49.0
THIRD QUARTER	117.8	74.1	60.7	35.5	51.5	48.0
FOURTH QUARTER	120.5	76.2	61.7	35.6	51.2	46.7
TOTAL 1996	468.7	293.0	244.9	142.1		
1997 FIRST QUARTER	122.7	76.9	63.9	37.1	52.1	48.3
SECOND QUARTER	124.8	79.4	63.2	37.1	50.7	46.7
THIRD QUARTER	124.9	78.9	65.3	38.6	52.3	48.9

Note - Switched access minutes are those minutes transmitted by long distance carriers that also use the distribution networks local telephone companies. The measure includes minutes associated with ordinary long distance calls and the "open end" of WATS-Like calls. It excludes calls made on private telecommunications systems, on leased lines, and minutes on the "closed end" of WATS-Like calls.

SOURCE: Industry Analysis Division, Long Distance Market Share.

TABLE 11.2

PRESUBSCRIBED TELEPHONE LINES BY CARRIER

	DECEMBER 1996	JUNE 96	DECEMBER 1995	JUNE 95	DECEMBER 1994	JUNE 94
TOTAL NUMBER OF CARRIERS WITH PRESUBSCRIBED LINES	621	582	583	549	511	454
TOTAL NUMBER OF QUALIFYING CARRIERS	45	43	44	36	35	29
TOTAL NUMBER OF NON-QUALIFYING CARRIERS	576	539	539	513	476	425
QUALIFYING CARRIERS 1/						
AT&T COMPANIES:						
AT&T COMMUNICATIONS	100,177,257	99,599,355	101,138,792	102,502,271	103,957,425	102,421,583
AT&T ALASCOM, INC. 2/	224,192	222,144	218,135	232,525	226,974	222,142
MCI TELECOMMUNICATIONS CORP.	22,938,608	24,338,086	23,911,437	23,459,534	22,040,062	22,286,410
SOUTHERNET						
TELECOM*USA						
TELECONNECT						
SPRINT	11,788,717	10,905,940	9,784,388	9,589,788	9,467,999	9,244,159
LA CONEXION FAMILIAR, INC.						
LONG DISTANCE/USA						
WORLDCOM 3/	4,297,498	4,110,753	4,088,816	3,683,433	1,954,198	1,831,304
ADVANCED TELECOM CORP. (ATC)						
AMERICAN NETWORK						
CLAYDESTA DIGITAL						
COM SYSTEMS DBA SUN DIAL						
ITT						
METROMEDIA						
MICROTEL						
MID-AMERICAN						
NATIONAL TELECOMMUNICATIONS						
NTS (NATIONAL TELEPHONE SYSTEMS)						
TELUS/TELTEC SAVING						
TOUCH-1 LONG DISTANCE						
WILTEL 4/					320,571	161,143
MFS INTELENET, INC.	211,085	177,648	106,489		960,004	677,430
EXCEL TELECOMMUNICATIONS, INC.	3,792,171	3,313,287	1,486,953	223,235	75,543	
LCI COMPANIES:						
LCI INTERNATIONAL/LITEL 5/	2,244,192	1,965,532	1,227,925	840,968	638,464	614,937
LCI CORPORATE TELEMANAGEMENT GROUP			85,868			
LCI/US SIGNAL CORP. 6/			128,305	121,445	114,026	
FRONTIER COMPANIES: 7/	2,050,019	2,097,182	2,348,301			
FRONTIER DBA ALLNET COMM. SVC., INC. 8/	(1,334,100)	(1,317,313)	(1,548,658)	1,650,296	1,334,360	1,078,577
FRONTIER COMMUNICATIONS INT'L 9/	(488,074)	(441,493)	(436,609)	365,841	283,372	278,542
FRONTIER COMM-NORTH CENTRAL REGION 10/	(134,721)	(150,661)	(161,242)	154,038	132,946	
FRONTIER OF THE GREAT LAKES 11/	(93,124)	(97,277)	(95,633)	88,043	84,141	80,573
FRONTIER OF THE WEST 12/		(90,438)	(106,159)	133,300	137,489	144,240
SNET AMERICA LONG DISTANCE	783,135	597,251	304,391	223,844	105,855	
GTE LONG DISTANCE CO.	733,558	169,609				
CABLE & WIRELESS COMMUNICATIONS	625,367	584,802	543,617	524,014	524,153	537,919
TELEFONICA LARGA DISTANCIA	470,267	458,783	452,017	444,205	441,467	446,390
U.S. LONG DISTANCE/ZERO PLUS	356,932	276,153	212,611	149,308	116,602	
UNITED TELEPHONE LONG DISTANCE	289,380	471,687	517,379	545,189	572,010	612,991
TOUCH 1 COMMUNICATIONS	209,905	149,392	134,779	108,550		
CITIZENS TELECOM	206,698	141,636				
LONG DISTANCE SAVERS	185,247	170,359	158,001	151,473	141,697	128,716
BUSINESS TELECOM, INC. (BTI)	177,423	171,239	146,118	132,196	121,822	100,808
INTER CONTINENTAL TELEPHONE	160,084	117,780	134,572	120,932	99,033	84,534
L.D. SERVICES, INC.	143,601	116,239	99,557	90,774		
COASTAL TELEPHONE COMPANY	141,358	133,108	97,917			
NATIONAL TELEPHONE COMMUNICATIONS, INC.	139,185					
VARTEC TELECOM, INC.	137,594	116,898	120,832	136,568	122,991	130,738
CINCINNATI BELL LONG DISTANCE INC.	134,506	120,710	115,398	102,634	102,163	92,302
GENERAL COMMUNICATIONS, INC.	130,994	124,969	119,883	102,813	102,528	102,202
ALLTEL LONG DISTANCE	127,563	78,401				
SWITCHED SERVICES COMMUNICATIONS 13/	126,721					
TELAMERICA, INC.	124,628	122,093	115,403	109,463	105,053	100,282
ATX TELECOMMUNICATIONS SERVICES	122,297	119,843	118,637	113,466	107,979	110,023
ONE CALL COMMUNICATIONS	120,952	110,352	93,613	78,328		
AMERVISION COMMUNICATIONS	117,120					
CENTURY AREA LONG LINES	116,708	104,143				
ACCESS LONG DISTANCE	107,423	101,914	90,562	81,438		
OCI (ONCOR)	106,742	116,046	128,209	148,918	161,085	163,972
INTERNATIONAL TELECHARGE						
COMMONWEALTH LONG DISTANCE (CLD)	103,421	109,349	139,414	146,663	147,045	125,682
AMERICAN TELCO, INC.	99,806	89,783	83,402			
TWT-HEARTLINE	97,531	118,455	117,739			
ACC LONG DISTANCE CORPORATION	87,667	80,795	79,652		74,482	72,803
MATRIX TELECOM	85,971	89,689	91,031			
TRESCOM INTERNATIONAL, INC.	84,766					
DELTACOM L.D.S.	83,580					
WINSTAR GATEWAY NETWORK, INC.		109,991	86,652			
MIDCOM COMMUNICATIONS		79,472	81,386	102,076		
COMMUNIQUE TELECOM						
WORLDEXCHANGE 14/			140,610	127,839	188,295	197,874
CHERRY COMMUNICATIONS			104,367	93,746	156,055	79,270
ALIAN SYSTEMS (FORMERLY UNTEL - LINCOLN)			79,281	81,010	85,496	88,136
SONIC COMMUNICATIONS 15/					114,041	
TELESPHERE NETWORK 15/						
PUERTO RICO TEL-COM						
NETECH COMM. US WEST						
TOTAL QUALIFYING CARRIERS	154,461,869	152,080,868	149,232,439	146,960,164	145,317,426	142,215,682
NON-QUALIFYING CARRIERS	4,210,374	3,920,356	3,368,738	3,384,888	3,161,902	3,013,060
TOTAL INDUSTRY PRESUBSCRIBED LINES	158,672,243	156,001,224	152,601,177	150,345,052	148,479,328	145,228,742

TABLE 11.2

PRESUBSCRIBED TELEPHONE LINES BY CARRIER

	DECEMBER 1996	JUNE 96	DECEMBER 1995	JUNE 95	DECEMBER 1994	JUNE 94
TOTAL NUMBER OF CARRIERS WITH PRESUBSCRIBED LINES	621	582	583	549	511	454
TOTAL NUMBER OF QUALIFYING CARRIERS	45	43	44	36	35	29
TOTAL NUMBER OF NON-QUALIFYING CARRIERS	576	539	539	513	476	425
QUALIFYING CARRIERS 1/						
AT&T COMPANIES:						
AT&T COMMUNICATIONS	100,177,257	99,599,355	101,138,792	102,502,271	103,957,425	102,421,583
AT&T ALASCOM, INC. 2/	224,192	222,144	218,135	232,525	226,974	222,142
MCI TELECOMMUNICATIONS CORP.	22,938,608	24,338,086	23,911,437	23,459,534	22,040,062	22,286,410
SOUTHERNET						
TELECOM USA						
TELECONNECT						
SPRINT	11,788,717	10,905,940	9,784,388	9,589,788	9,467,999	9,244,159
LA CONEXION FAMILIAR, INC.						
LONG DISTANCE/USA						
WORLDCOM 3/	4,297,498	4,110,753	4,088,816	3,683,433	1,954,198	1,831,304
ADVANCED TELECOM CORP. (ATC)						
AMERICAN NETWORK						
CLAYDESTA DIGITAL						
COM SYSTEMS DBA SUN DIAL						
ITT						
METROMEDIA						
MICROTEL						
MID-AMERICAN						
NATIONAL TELECOMMUNICATIONS						
NTS (NATIONAL TELEPHONE SYSTEMS)						
TELUS/TELTEC SAVING						
TOUCH-1 LONG DISTANCE						
WILTEL 4/					320,571	161,143
MFS INTELENET, INC.	211,085	177,648	106,489		960,004	677,430
EXCEL TELECOMMUNICATIONS, INC.	3,792,171	3,313,287	1,486,953	223,235	75,543	
LCI COMPANIES:						
LCI INTERNATIONAL/LITEL 5/	2,244,192	1,965,532	1,227,925	840,968	638,464	614,937
LCI CORPORATE TELEMANAGEMENT GROUP			85,868			
LCIUS SIGNAL CORP. 6/			128,305	121,445	114,026	
FRONTIER COMPANIES: 7/	2,050,019	2,097,182	2,348,301			
FRONTIER dba ALL NET COMM. SVC., INC. 8/	(1,334,100)	(1,317,313)	(1,548,658)	1,650,296	1,334,360	1,078,577
FRONTIER COMMUNICATIONS INTL 9/	(488,074)	(441,493)	(436,509)	365,841	283,372	278,542
FRONTIER COMM-NORTH CENTRAL REGION 10/	(134,721)	(150,661)	(161,242)	154,038	132,946	
FRONTIER OF THE GREAT LAKES 11/	(93,124)	(97,277)	(95,633)	88,043	84,141	80,573
FRONTIER OF THE WEST 12/		(90,438)	(106,159)	133,300	137,489	144,240
SNET AMERICA LONG DISTANCE	783,135	597,251	304,391	223,844	105,855	
GTE LONG DISTANCE CO.	733,558	169,609				
CABLE & WIRELESS COMMUNICATIONS	625,367	584,802	543,617	524,014	524,153	537,919
TELEFONICA LARGA DISTANCIA	470,267	458,783	452,017	444,205	441,467	446,390
U.S. LONG DISTANCE/ZERO PLUS	356,932	276,153	212,611	149,308	116,602	
UNITED TELEPHONE LONG DISTANCE	289,380	471,687	517,379	545,189	572,010	612,991
TOUCH 1 COMMUNICATIONS	209,905	149,392	134,779	108,550		
CITIZENS TELECOM	206,698	141,636				
LONG DISTANCE SAVERS	185,247	170,359	158,001	151,473	141,697	128,716
BUSINESS TELECOM, INC. (BTI)	177,423	171,239	146,118	132,196	121,822	100,808
INTER CONTINENTAL TELEPHONE	160,084	117,780	134,572	120,932	99,033	84,534
L.D. SERVICES, INC.	143,601	116,239	99,557	90,774		
COASTAL TELEPHONE COMPANY	141,358	133,108	97,917			
NATIONAL TELEPHONE COMMUNICATIONS, INC.	139,185					
VARTEC TELECOM, INC.	137,594	116,898	120,832	136,568	122,991	130,738
CINCINNATI BELL LONG DISTANCE INC.	134,506	120,710	115,398	102,634	102,163	92,302
GENERAL COMMUNICATIONS, INC.	130,994	124,969	119,883	102,813	102,528	102,202
ALLTEL LONG DISTANCE	127,563	78,401				
SWITCHED SERVICES COMMUNICATIONS 13/	126,721					
TELAMERICA, INC.	124,628	122,093	115,403	109,463	105,053	100,282
ATX TELECOMMUNICATIONS SERVICES	122,297	119,843	118,637	113,466	107,979	110,023
ONE CALL COMMUNICATIONS	120,952	110,352	93,613	78,328		
AMERIVISION COMMUNICATIONS	117,120					
CENTURY AREA LONG LINES	116,708	104,143				
ACCESS LONG DISTANCE	107,423	101,914	90,562	81,438		
OCI (ONCOR)	106,742	116,046	128,209	148,918	161,085	163,972
INTERNATIONAL TELECHARGE						
COMMONWEALTH LONG DISTANCE (CLD)	103,421	109,349	139,414	146,663	147,045	125,682
AMERICAN TELCO, INC.	99,806	89,783	83,402			
TWT-HEARTLINE	97,531	118,455	117,739			
ACC LONG DISTANCE CORPORATION	87,667	80,795	79,652		74,482	72,803
MATRIX TELECOM	85,971	89,689	91,031			
TRESCOM INTERNATIONAL, INC.	84,766					
DELTACOM L.D.S.	83,580					
WINSTAR GATEWAY NETWORK, INC.		109,991	86,652			
MIDCOM COMMUNICATIONS		79,472	81,386	102,076		
COMMUNIQUE TELECOM					188,295	197,874
WORLDEXCHANGE 14/			140,610	127,839	156,055	79,270
CHERRY COMMUNICATIONS			104,367	93,746		
ALIAN SYSTEMS (FORMERLY UNTEL - LINCOLN)			79,281	81,010	85,496	88,136
SONIC COMMUNICATIONS 15/					114,041	
TELESPHERE NETWORK 15/						
PUERTO RICO TEL-COM						
NETECH COMM. US WEST						
TOTAL QUALIFYING CARRIERS	154,461,869	152,080,868	149,232,439	146,960,164	145,317,426	142,215,682
NON-QUALIFYING CARRIERS	4,210,374	3,920,356	3,368,738	3,384,888	3,161,902	3,013,060
TOTAL INDUSTRY PRESUBSCRIBED LINES	158,672,243	156,001,224	152,601,177	150,345,052	148,479,328	145,228,742

TABLE 11.2

PRESUBSCRIBED TELEPHONE LINES BY CARRIER-CONTINUED

	DECEMBER 1993	JUNE 93	DECEMBER 1992	JUNE 92	DECEMBER 1991	JUNE 91
TOTAL NUMBER OF CARRIERS WITH PRESUBSCRIBED LINES	436	412	414	425	388	355
TOTAL NUMBER OF QUALIFYING CARRIERS	27	28	28	24	22	24
TOTAL NUMBER OF NON-QUALIFYING CARRIERS	409	384	386	401	366	331
QUALIFYING CARRIERS 1/						
AT&T COMPANIES:						
AT&T COMMUNICATIONS	101,711,178	101,770,741	101,203,888	101,384,413	101,498,260	101,013,529
AT&T ALASCOM, INC. 2/	216,964	218,225	209,850	203,832	203,105	196,244
MCI TELECOMMUNICATIONS CORP.	21,818,212	21,170,832	20,167,298	19,189,649	18,329,870	17,603,453
SOUTHERNET						
TELECOM*USA						
TELECONNECT						
SPRINT	9,212,993	8,621,177	8,856,004	8,424,303	8,353,583	8,702,085
LA CONEXION FAMILIAR, INC.			71,327	72,555		
LONG DISTANCE/USA						
WORLDWIDE 3/						
ADVANCED TELECOM CORP. (ATC)	1,752,616	931,553	482,043	338,820	332,244	134,043
AMERICAN NETWORK			440,961	331,136	333,152	334,157
CLAYDESTA DIGITAL						
COM SYSTEMS DBA SUN DIAL		134,950	126,190	117,571	116,326	119,034
ITT						
METROMEDIA		538,362	494,864	468,698	476,128	497,187
MICROTEL						
MID-AMERICAN						
NATIONAL TELECOMMUNICATIONS						
NTS (NATIONAL TELEPHONE SYSTEMS)						91,417
TELUS/TELTEC SAVING						
TOUCH-1 LONG DISTANCE	98,044	105,244	110,929			
WLTTEL 4/	432,844	339,960	191,076	116,501	87,758	
MPS INTELENET, INC.						
EXCEL TELECOMMUNICATIONS, INC.						
LCI COMPANIES:						
LCI INTERNATIONAL/LITEL 5/	405,644	359,575	338,496	226,350	186,884	163,089
LCI CORPORATE TELEMANAGEMENT GROUP						
LCI/US SIGNAL CORP. 6/	109,071	93,155	77,096			
FRONTIER COMPANIES: 7/						
FRONTIER dba ALLNET COMM. SVC., INC. 8/	891,577	846,961	859,499	830,548	813,748	775,847
FRONTIER COMMUNICATIONS INT'L 9/	279,304	260,760	252,495	240,670	190,382	180,321
FRONTIER COMM-NORTH CENTRAL REGION 10/						
FRONTIER OF THE GREAT LAKES 11/	77,699	76,521	71,059			
FRONTIER OF THE WEST 12/	96,539					
SNET AMERICA LONG DISTANCE						
GTE LONG DISTANCE CO.						
CABLE & WIRELESS COMMUNICATIONS	529,398	522,112	513,419	490,228	466,935	448,951
TELEFONICA LARGA DISTANCIA	442,922	436,695	432,701	425,334	419,293	393,034
U.S. LONG DISTANCE/ZERO PLUS						
UNITED TELEPHONE LONG DISTANCE	648,131	625,831	639,341	626,850	596,114	590,187
TOUCH 1 COMMUNICATIONS						
CITIZENS TELECOM						
LONG DISTANCE SAVERS	112,905	98,514	87,687	80,839	77,568	73,696
BUSINESS TELECOM, INC. (BTI)	79,396					
INTER CONTINENTAL TELEPHONE						
L.D. SERVICES, INC.						
COASTAL TELEPHONE COMPANY						
NATIONAL TELEPHONE COMMUNICATIONS, INC.						
VARTEC TELECOM, INC.	117,692	77,258				
CINCINNATI BELL LONG DISTANCE INC.	93,659	93,014	90,841	85,974	79,182	74,387
GENERAL COMMUNICATIONS, INC.	99,911	91,812	97,798	94,229	93,233	90,252
ALLTEL LONG DISTANCE						
SWITCHED SERVICES COMMUNICATIONS 13/						
TELAMERICA, INC.	94,114	92,719	92,860	91,460	85,801	90,887
ATX TELECOMMUNICATIONS SERVICES	104,971	86,186	82,303	70,246		
ONE CALL COMMUNICATIONS						
AMERVISION COMMUNICATIONS						
CENTURY AREA LONG LINES						
ACCESS LONG DISTANCE						
OCI (ONCOR)	144,511	106,625	87,593			
INTERNATIONAL TELECHARGE						
COMMONWEALTH LONG DISTANCE (CLD)	113,072	103,407	103,684	93,241	72,813	82,085
AMERICAN TELCO, INC.						
TWT-HEARTLINE						
ACC LONG DISTANCE CORPORATION						
MATRIX TELECOM						
TRESCOM INTERNATIONAL, INC.						
DELTACOM L.D.S.						
WINSTAR GATEWAY NETWORK, INC.						
MIDCOM COMMUNICATIONS						
COMMUNIQUE TELECOM	189,781	161,398	148,865	133,090	106,892	93,809
WORLDEXCHANGE 14/						
CHERRY COMMUNICATIONS						
ALJANT SYSTEMS (FORMERLY UNTEL - LINCOLN)	90,146	91,420	93,427	93,562	94,183	96,415
SONIC COMMUNICATIONS 15/						
TELESPHERE NETWORK 15/						
PUERTO RICO TEL-COM						94,666
NETECH COMM, US WEST		107,063				79,146
TOTAL QUALIFYING CARRIERS	139,963,294	138,162,070	136,423,594	134,230,099	133,013,454	132,017,921
NON-QUALIFYING CARRIERS						
	2,845,986	2,452,609	2,301,446	2,473,551	2,273,128	1,878,542
TOTAL INDUSTRY PRESUBSCRIBED LINES	142,809,280	140,614,679	138,725,040	136,703,650	135,286,582	133,896,463

TABLE 11.2

PRESUBSCRIBED TELEPHONE LINES BY CARRIER--CONTINUED

	DECEMBER 1990	JUNE 90	DECEMBER 1989	JUNE 89	DECEMBER 1988	JUNE 88	DECEMBER 1987
TOTAL NUMBER OF CARRIERS WITH PRESUBSCRIBED LINES	325	314	302	276	253	242	223
TOTAL NUMBER OF QUALIFYING CARRIERS	21	20	20	21	21	20	19
TOTAL NUMBER OF NON-QUALIFYING CARRIERS	304	294	282	255	232	222	204
QUALIFYING CARRIERS 1/							
AT&T COMPANIES:							
AT&T COMMUNICATIONS	100,061,611	99,612,725	99,396,609	100,006,827	100,205,677	100,832,869	101,652,678
AT&T ALASCOM, INC. 2/	182,341	179,175	168,095	165,332	161,572	157,250	152,040
MCI TELECOMMUNICATIONS CORP.	17,434,898	16,864,001	15,055,643	13,671,625	12,149,921	10,941,207	9,990,561
SOUTHERNET					215,384	199,093	183,769
TELECOM*USA		712,263	646,084	533,516			
TELECONNECT					247,042	211,949	156,614
SPRINT	8,743,988	8,148,013	8,167,538	7,674,605	7,197,136	6,382,372	5,836,179
LA CONEXION FAMILIAR, INC.							
LONG DISTANCE/USA						81,692	85,680
WORLDCOM 3/	116,864	70,781	66,576				
ADVANCED TELECOM CORP. (ATC)	355,518	372,260	396,319	262,542			
AMERICAN NETWORK							95,926
CLAYDESTA DIGITAL					96,914	78,804	71,794
COM SYSTEMS DBA SUN DIAL	118,963	118,225	89,081	87,520	62,773		
ITT		360,551	412,197	425,109	420,793	394,707	279,549
METROMEDIA	515,711	198,374	207,599	209,036	215,181	211,210	215,485
MICROTEL					70,273	63,587	
MID-AMERICAN				89,367	97,526	100,113	96,384
NATIONAL TELECOMMUNICATIONS							
NTS (NATIONAL TELEPHONE SYSTEMS)		67,129	77,667	65,692			
TELUSET/TELEC SAVING				134,150	125,339	117,191	105,243
TOUCH-1 LONG DISTANCE							
WILTEL 4/							
MFS INTELENET, INC.							
EXCEL TELECOMMUNICATIONS, INC.							
LCI COMPANIES:							
LCI INTERNATIONAL/LITEL 5/	144,926	137,164	123,748	107,302	92,014		
LCI CORPORATE TELEMAGEMENT GROUP							
LCI/US SIGNAL CORP. 6/							
FRONTIER COMPANIES: 7/							
FRONTIER dba ALLNET COMM. SVC., INC. 8/	744,452	709,876	677,531	687,097	763,680	818,080	726,974
FRONTIER COMMUNICATIONS INTL 9/	171,198	150,069	113,329	98,334	83,383	63,574	
FRONTIER COMM-NORTH CENTRAL REGION 10/							
FRONTIER OF THE GREAT LAKES 11/							
FRONTIER OF THE WEST 12/							
SNET AMERICA LONG DISTANCE							
GTE LONG DISTANCE CO.							
CABLE & WIRELESS COMMUNICATIONS	422,534	407,906	394,020	358,290	304,976	256,786	236,000
TELEFONICA LARGA DISTANCIA	375,694						
U.S. LONG DISTANCE/ZERO PLUS							
UNITED TELEPHONE LONG DISTANCE	548,303	524,477	513,033	430,550	285,385	167,025	82,602
TOUCH 1 COMMUNICATIONS							
CITIZENS TELECOM							
LONG DISTANCE SAVERS							
BUSINESS TELECOM, INC. (BTI)							
INTER CONTINENTAL TELEPHONE							
L.D. SERVICES, INC.							
COASTAL TELEPHONE COMPANY							
NATIONAL TELEPHONE COMMUNICATIONS, INC.							
VARTEC TELECOM, INC.							
CINCINNATI BELL LONG DISTANCE INC.	67,689						
GENERAL COMMUNICATIONS, INC.	88,360	82,386	86,089	85,773	83,468	84,807	89,338
ALLTEL LONG DISTANCE							
SWITCHED SERVICES COMMUNICATIONS 13/							
TELAMERICA, INC.	101,968	102,530	100,213	99,038	90,570	94,654	94,292
ATX TELECOMMUNICATIONS SERVICES							
ONE CALL COMMUNICATIONS							
AMERVISION COMMUNICATIONS							
CENTURY AREA LONG LINES							
ACCESS LONG DISTANCE							
OCI (ONCOR)							
INTERNATIONAL TELECHARGE	83,725	87,751	95,252	71,346			
COMMONWEALTH LONG DISTANCE (CLD)							
AMERICAN TELCO, INC.							
TWT-HEARTLINE							
ACC LONG DISTANCE CORPORATION							
MATRIX TELECOM							
TRESCOM INTERNATIONAL, INC.							
DELTACOM L.D.S.							
WINSTAR GATEWAY NETWORK, INC.							
MIDCOM COMMUNICATIONS							
COMMUNIQUE TELECOM							
WORLDEXCHANGE 14/							
CHERRY COMMUNICATIONS							
ALIAN SYSTEMS (FORMERLY LINTEL - LINCOLN)	99,594	95,126	96,966	93,353	94,031	92,636	93,352
SONIC COMMUNICATIONS 15/							
TELESPHERE NETWORK 15/	111,386						
PUERTO RICO TEL-COM	99,821						
NETECH COMM, US WEST							
TOTAL QUALIFYING CARRIERS	130,589,544	129,000,782	126,883,689	125,356,404	123,063,038	121,349,606	120,244,460
NON-QUALIFYING CARRIERS	1,819,064	1,776,233	1,598,790	1,390,131	1,297,791	1,315,809	1,222,040
TOTAL INDUSTRY PRESUBSCRIBED LINES	132,408,608	130,777,015	128,482,479	126,746,535	124,360,829	122,665,415	121,466,500

SEE NOTES FOLLOWING TABLE 11.4.

TABLE 11.3
MARKET SHARE OF PRESUBSCRIBED LINES

		AT&T	MCI	SPRINT	WORLDCOM	OTHER CARRIERS
1987	DEC	83.7 %	8.2 %	4.8 %		3.3 %
1988	JUNE	82.2	8.9	5.2		3.7
	DEC	80.6	9.8	5.8		3.9
1989	JUNE	78.9	10.8	6.1	0.0 %	4.3
	DEC	77.4	11.7	6.4	0.1	4.5
1990	JUNE	76.2	12.9	6.2	0.1	4.7
	DEC	75.6	13.2	6.6	0.1	4.6
1991	JUNE	75.4	13.1	6.5	0.1	4.8
	DEC	75.0	13.5	6.2	0.2	5.0
1992	JUNE	74.2	14.0	6.2	0.2	5.4
	DEC	73.0	14.5	6.4	0.3	5.8
1993	JUNE	72.4	15.1	6.1	0.7	5.8
	DEC	71.2	15.3	6.5	1.2	5.8
1994	JUNE	70.5	15.3	6.4	1.3	6.5
	DEC	70.0	14.8	6.4	1.3	7.4
1995	JUNE	68.2	15.6	6.4	2.4	7.4
	DEC	66.4	15.7	6.4	2.7	8.8
1996	JUNE	64.0	15.6	7.0	2.6	10.8
	DEC	63.3	14.5	7.4	2.7	12.1

TABLE 11.4
ANNUAL RATES OF GROWTH OF PRESUBSCRIBED LINES

		AT&T	MCI	SPRINT	WORLDCOM	OTHER CARRIERS	TOTAL INDUSTRY LINES
1987	DEC						
1988	JUNE						
	DEC	-1.4 %	21.6 %	23.3 %		22.1 %	2.4 %
1989	JUNE	-0.8	25.0	20.2		21.1	3.3
	DEC	-0.8	23.9	13.5		18.7	3.3
1990	JUNE	-0.4	23.4	6.2		10.6	3.2
	DEC	0.7	15.8	7.1	75.5 %	17.3	3.1
1991	JUNE	1.4	4.4	6.8	89.4	19.7	2.4
	DEC	1.4	5.1	-4.5	184.3	11.8	2.2
1992	JUNE	0.4	9.0	-3.2	152.8	13.2	2.1
	DEC	-0.3	10.0	6.0	45.1	17.2	2.5
1993	JUNE	0.4	10.3	2.3	174.9	11.3	2.9
	DEC	0.5	8.2	4.0	263.6	4.7	2.9
1994	JUNE	0.6	5.3	7.2	96.6	16.1	3.3
	DEC	2.2	1.0	2.8	11.5	32.7	4.0
1995	JUNE	0.1	5.3	3.7	101.1	17.6	3.5
	DEC	-2.5	8.5	3.3	109.2	21.8	2.8
1996	JUNE	-2.6	3.7	13.7	11.6	51.6	3.8
	DEC	-0.9	-4.1	20.5	5.1	43.0	4.0

NOTES FOR TABLES 11.2-11.4.

- 1/ QUALIFYING CARRIERS' DATA ARE SHOWN ONLY FOR YEARS IN WHICH THE CARRIER HAD AT LEAST .05% OF OVERALL PRESUBSCRIBED LINES.
- 2/ PURCHASED BY AT&T IN 1995.
- 3/ LDDS/WORLDCOM CHANGED ITS NAME TO WORLDCOM, INC. IN MAY 1995.
- 4/ LDDS AND WITEL MERGED ON JANUARY 5, 1995.
- 5/ NAME CHANGED FROM LITEL, DECEMBER 1994.
- 6/ NAME CHANGED FROM TELEDIAL AMERICA, DECEMBER 1994.
- 7/ THE TOTAL NUMBER OF PRESUBSCRIBED LINES REPORTED FOR FRONTIER FOR 1995 AND 1996 ARE ONLY FOR THOSE SUBSIDIARIES WHICH MEET THE QUALIFYING COMPANIES' THRESHOLD NOTED IN FOOTNOTE 1 ABOVE.
- 8/ PURCHASED BY FRONTIER IN 1995.
- 9/ NAME CHANGED FROM RCI, DECEMBER 1994.
- 10/ FORMERLY AMERICAN SHARECOM; PURCHASED BY FRONTIER IN 1995.
- 11/ FORMERLY SCHNEIDER COMMUNICATIONS; PURCHASED BY FRONTIER IN 1995.
- 12/ FORMERLY WEST COAST TELECOMMUNICATIONS; PURCHASED BY FRONTIER IN 1995.
- 13/ SUBSIDIARY OF IXC COMMUNICATIONS, INC.
- 14/ NAME CHANGED FROM COMMUNICATIONS TELESYSTEMS INT'L (CTI) IN 1995.
- 15/ COMPANY WENT BANKRUPT.

TABLE 11.5

MARKET SHARE OF PRESUBSCRIBED TELEPHONE LINES BY STATE AS OF DECEMBER 31, 1991

STATE	AT&T	MCI	SPRINT	WORLDCOM	EXCEL	OTHER CARRIERS	TOTAL LINES
ALABAMA	67.1 %	13.0 %	4.0 %	3.6 %	3.9 %	8.3 %	2,233,362
ALASKA	0.0	0.0	0.0	0.0	0.0	100.0	355,185
ARIZONA	59.8	14.4	8.9	4.6	2.7	9.6	2,414,612
ARKANSAS	67.2	11.4	5.5	4.2	4.7	7.0	1,288,457
CALIFORNIA	61.7	16.4	9.0	2.6	2.4	7.9	19,805,310
COLORADO	56.1	17.0	8.9	4.2	3.1	10.6	2,381,182
CONNECTICUT	38.8	11.3	5.3	1.8	0.8	42.0	2,035,573
DELAWARE	66.4	16.5	6.3	1.4	1.1	8.4	466,474
DIST. OF COLUMBIA	67.9	17.7	6.8	2.3	0.0	5.3	771,630
FLORIDA	66.2	12.2	8.0	3.3	2.9	7.3	9,571,502
GEORGIA	64.3	14.4	8.4	2.7	3.1	7.2	4,275,408
HAWAII	56.5	13.9	18.5	0.4	3.8	7.0	615,288
IDAHO	58.5	13.2	6.2	4.5	5.8	11.8	612,755
ILLINOIS	66.4	13.6	7.4	2.7	1.9	8.0	7,442,595
INDIANA	67.9	13.0	6.5	3.1	2.9	6.6	3,122,167
IOWA	61.8	16.5	5.3	5.3	2.8	8.2	1,495,268
KANSAS	61.9	13.0	10.9	2.9	3.3	7.9	1,486,306
KENTUCKY	67.2	12.6	4.3	4.3	4.6	7.0	1,897,582
LOUISIANA	63.2	13.3	4.4	6.3	2.5	10.4	2,265,803
MAINE	71.3	11.6	6.6	1.5	2.0	7.1	754,878
MARYLAND	64.6	18.8	7.4	1.9	0.0	7.3	3,052,067
MASSACHUSETTS	70.5	13.0	8.7	1.9	0.7	5.2	4,151,814
MICHIGAN	62.7	14.5	6.2	2.3	3.0	11.2	5,703,053
MINNESOTA	58.5	19.8	5.8	2.6	2.9	10.4	2,729,586
MISSISSIPPI	66.9	14.0	3.7	4.7	3.2	7.5	1,244,747
MISSOURI	62.5	12.9	10.6	3.6	2.9	7.4	3,064,182
MONTANA	64.0	11.6	6.2	2.5	4.9	10.7	481,698
NEBRASKA	59.2	14.1	6.4	4.3	3.2	12.7	927,923
NEVADA	58.6	13.3	14.8	3.0	3.2	7.1	1,074,104
NEW HAMPSHIRE	71.1	11.3	8.2	1.7	0.9	6.8	752,763
NEW JERSEY	71.2	14.3	5.1	2.0	1.0	6.4	5,776,498
NEW MEXICO	59.8	16.1	7.6	4.4	3.8	8.4	814,166
NEW YORK	64.3	14.2	9.0	1.9	0.9	9.6	11,562,379
NORTH CAROLINA	63.8	11.5	10.2	2.5	3.9	8.1	4,166,616
NORTH DAKOTA	59.4	16.3	4.4	6.0	3.8	10.2	354,244
OHIO	63.1	14.0	7.3	2.8	2.3	10.5	6,227,640
OKLAHOMA	63.0	12.4	6.5	3.7	4.4	10.0	1,822,825
OREGON	64.0	11.3	9.0	5.0	2.8	7.9	1,847,314
PENNSYLVANIA	66.1	14.3	6.4	1.7	1.6	10.0	7,119,669
RHODE ISLAND	72.1	12.0	7.5	2.0	1.1	5.3	602,318
SOUTH CAROLINA	60.3	14.9	5.3	2.9	4.9	11.6	1,962,005
SOUTH DAKOTA	61.0	15.0	4.6	4.0	4.8	10.7	385,081
TENNESSEE	67.3	13.3	6.3	3.9	3.2	6.0	3,071,812
TEXAS	58.5	15.8	7.7	3.2	2.9	11.9	10,678,438
UTAH	58.1	14.6	7.4	4.0	3.9	12.0	984,594
VERMONT	67.7	12.5	7.1	2.1	1.1	9.5	365,472
VIRGINIA	61.9	20.6	8.3	2.3	0.9	6.0	3,765,373
WASHINGTON	59.8	13.8	10.1	3.6	3.4	9.4	3,270,199
WEST VIRGINIA	69.7	15.5	4.7	2.6	0.4	7.2	846,340
WISCONSIN	64.2	14.7	5.7	2.4	2.4	10.7	3,057,769
WYOMING	66.9	12.7	6.1	4.0	3.6	6.8	274,309
UNITED STATES	63.3	14.5	7.6	2.9	2.4	9.3	157,428,335
N. MARIANA ISL.	0.0	71.3	0.0	0.0	0.0	28.7	20,976
PUERTO RICO	41.1	10.6	4.0	0.0	0.0	44.4	1,166,721
VIRGIN ISLANDS	70.8	0.0	10.3	0.0	0.0	18.9	56,211
GRAND TOTAL	63.1 %	14.5 %	7.6 %	2.8 %	2.4 %	9.6 %	158,672,243

Source: National Exchange Carrier Association PSL Database.

TABLE 11.6
TOTAL TOLL SERVICE REVENUES
(DOLLAR AMOUNTS SHOWN IN MILLIONS)

COMPANY	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985	1984
AT&T COMPANIES. 1/													
AT&T COMMUNICATIONS, INC.	\$39,264	\$38,069	\$37,166	\$35,731	\$35,495	\$34,384	\$33,880	\$34,549	\$35,407	\$35,219	\$36,514	\$36,770	\$34,935
ALASCOM, INC.		325	329	320	333	338	259	278	272	262	267	271	255
MCI TELECOMMUNICATIONS CORP. 2/	16,372	14,617	11,715	10,947	9,719	8,266	7,392	6,171	4,886	3,938	3,372	2,331	1,761
TELECOM*USA									713	524	396	291	105
SPRINT COMMUNICATIONS CO. 3/	7,944	7,277	6,805	6,139	5,658	5,378	5,041	4,320	3,405	2,592	1,141		
GTE SPRINT											779	1,122	1,052
US TELECOM											212	387	
WORLDCOM, INC. 4/	4,485	3,640	2,221	1,145	801	263	154	110					
ADVANCED TELECOMMUNICATIONS CORP.						356	342	326	178	162	124	86	72
METROMEDIA COMMUNICATIONS CORP. 5/				297	369	369	381	127					
ITT COMMUNICATION SERVICES, INC.								404	379	287	282	241	161
COMSYSTEMS NETWORK SERVICES				116	135	131	130						
WILTEL, INC.			917	664	494	405	376	300					
MFS INTELENET, INC.	122	118											
FRONTIER COMPANIES. 6/													
ALLNET COMM. SVCS. dba FRONTIER COMM. SVCS. 7/	1,119	827	568	436	376	347	326	334	394	395	450	309	
LEXITEL												127	
FRONTIER COMMUNICATIONS INT'L, INC. 8/	323	309	306	213	168	155	142	104					
FRONTIER COMMS. - NORTH CENTRAL REGION	121	133	123										
FRONTIER COMMUNICATIONS OF THE WEST, INC.		127	144										
LCI INTERNATIONAL TELECOM CORP.	1,103	671	453	317	243	208	215	197					
EXCEL TELECOMMUNICATIONS, INC. 9/ 10/	1,091	363	156										
CABLE & WIRELESS COMMUNICATIONS, INC.	919	700	654	557	495	406	359	275	218	180	171	146	
VARTEC TELECOM, INC.	470	125	107										
TELCO COMMUNICATIONS GROUP, INC.	429	215											
CHERRY COMMUNICATIONS, INC.	354												
USA GLOBAL LINK	242												
TEL-SAVE, INC. 9/	232	180											
TELEGROUP, INC. 9/	213	129											
STAR TELECOMMUNICATIONS, INC.	208												
IXC COMMUNICATIONS, INC.	204												
COMMUNICATION TELESYSTEMS INT'L. 9/	196	115											
USLD COMMUNICATIONS CORP. 11/	188	155	136	100									
PACIFIC GATEWAY EXCHANGE, INC.	162												
MIDCOM COMMUNICATIONS, INC.	149	204	109										
BUSINESS TELECOM, INC. 12/	149	115											
GENERAL COMMUNICATION, INC. 13/	143	120	106	92									
TRESCOM INTERNATIONAL, INC.	140												
ACC LONG DISTANCE CORP.	118												
PHONETIME, INC. (PTI)	117												
ONE CALL COMMUNICATIONS, INC.	114												
GE CAPITAL COMMUNICATIONS SERVICES CORP. 9/		120											
ONCOR COMMUNICATIONS, INC. 9/		111	172	140	159	181	230	275					
THE FURST GROUP, INC. 9/		109											
AMERICAN NETWORK EXCHANGE, INC.		101	109										
TELESPHERE NETWORK, INC. 14/						308	293	192					
(NATIONAL TELEPHONE SERVICES, INC.)								150					
OTHERS 15/	5,342	5,168	5,055	4,319	3,923	2,948	2,582	2,359	1,823	1,352	992	639	414
TOTAL LONG DISTANCE CARRIERS	82,033	74,143	67,351	61,533	58,368	54,443	52,102	51,184	47,487	44,783	44,595	42,630	38,755
BELL OPERATING COMPANIES	7,950	8,189	9,527	9,849	9,718	10,066	10,578	10,549	10,668	10,268	9,599	9,026	9,037
OTHER LOCAL TELEPHONE COMPANIES 15/	3,298	3,143	3,848	3,908	3,897	4,049	4,112	4,291	4,445	3,468	3,274	3,159	3,364
TOTAL LOCAL EXCHANGE COMPANIES	11,248	11,332	13,375	13,757	13,615	14,115	14,690	14,840	15,113	13,736	12,873	12,185	12,401
TOTAL TOLL SERVICE REVENUES	\$93,281	\$85,475	\$80,726	\$75,290	\$71,983	\$68,558	\$66,792	\$66,024	\$62,600	\$58,519	\$57,468	\$54,815	\$51,156

SEE NOTES FOLLOWING TABLE 11.8.

TABLE 11.7

**TOTAL TOLL SERVICE REVENUES - MARKET SHARE
(BASED ON REVENUES OF LONG DISTANCE CARRIERS ONLY)**

YEAR	AT&T	MCI	SPRINT	WORLDCOM	ALL OTHER LONG DISTANCE CARRIERS
1984	90.1 %	4.5 %	2.7 %		2.6 %
1985	86.3	5.5	2.6		5.6
1986	81.9	7.6	4.3		6.3
1987	78.6	8.8	5.8		6.8
1988	74.6	10.3	7.2		8.0
1989	67.5	12.1	8.4	0.2 %	11.8
1990	65.0	14.2	9.7	0.3	10.8
1991	63.2	15.2	9.9	0.5	11.3
1992	60.8	16.7	9.7	1.4	11.5
1993	58.1	17.8	10.0	1.9	12.3
1994	55.2	17.4	10.1	3.3	14.0
1995	51.8	19.7	9.8	4.9	13.8
1996	47.9	20.0	9.7	5.5	17.0

**TABLE 11.8
TOTAL TOLL SERVICE REVENUES - MARKET SHARE
(BASED ON REVENUES OF ALL LONG DISTANCE TOLL PROVIDERS)**

	AT&T	MCI	SPRINT	WORLDCOM	ALL OTHER LONG DISTANCE CARRIERS	BELL OPERATING COMPANIES	OTHER LOCAL TELEPHONE COMPANIES
1984	68.3 %	3.4 %	2.1 %		2.0 %	17.7 %	6.6 %
1985	67.1	4.3	2.0		4.4	16.5	5.8
1986	63.5	5.9	3.3		4.9	16.7	5.7
1987	60.2	6.7	4.4		5.2	17.5	5.9
1988	56.6	7.8	5.4		6.1	17.0	7.1
1989	52.3	9.3	6.5	0.2 %	9.1	16.0	6.5
1990	50.7	11.1	7.5	0.2	8.4	15.8	6.2
1991	50.2	12.1	7.8	0.4	9.0	14.7	5.9
1992	49.3	13.5	7.9	1.1	9.3	13.5	5.4
1993	47.5	14.5	8.2	1.5	10.1	13.1	5.2
1994	46.0	14.5	8.4	2.8	11.7	11.8	4.8
1995	44.9	17.1	8.5	4.3	12.0	9.6	3.7
1996	42.1	17.6	8.5	4.8	15.0	8.5	3.5

Notes for Tables 11.6-11.8.

Sources: Industry Analysis Division, Long Distance Market Shares.

Local exchange carrier information derived from USTA annual reports.

Long distance company information taken from reports filed pursuant to FCC Report and Order in CC Docket 83-1291.

1/ AT&T acquired Alascom August 7, 1995.

2/ MCI Telecommunications and Telecom USA merged during 1989. With the 1996 filing, MCI revised its 1995 revenues. MCI previously reported total operating revenues by SIC code. In its 1995 annual report to stockholders, MCI separated its core telecommunications services business from its business activities in ventures and developing markets. Its revenues for 1995 and 1996 now reflect core business information only.

3/ In July 1986, GTE Sprint and US Telecom merged into US Sprint. The information shown for GTE Sprint and US Telecom for 1986 is January 1 - June 30. The information shown for US Sprint for 1986 is for July 1-December 31. Effective February 26, 1992, the company's name became Sprint Communications Co.

4/ LDDS Communications, Inc. (which changed its name to WorldCom, Inc. in May 1995) and Advanced Telecommunications Corp. merged during 1992. In 1993, LDDS Communications, Inc. merged with Metromedia Communications Corp. and Comsystems Network Services. For 1993, only the revenues that were received after the merger are included in LDDS Communications' revenues. Those revenues up to the merger are listed individually for 1993. LDDS and Witel merged January 5, 1995. WorldCom acquired MFS Intelenet on December 31, 1996. WorldCom's market share does not include MFS Intelenet's revenues for 1996.

5/ Metromedia Communications Corp. and ITT Communications Corp. merged during 1988. Information for 1989 was reported separately.

6/ Frontier Corporation, the parent company of Frontier Communications Int'l, Inc., acquired ALC Communications, the parent company of Allnet on August 16, 1995. On May 18, 1995, Frontier Corporation acquired WCT Communications, the parent company of West Coast Telecommunications, which is now known as Frontier Communications of the West, Inc. In addition, on March 17, 1995, Frontier Corporation acquired American Sharecom, which is now known as Frontier Communications - North Central Region.

7/ Allnet and Lexitel merged at the end of 1985.

8/ Name changed from RCI Long Distance, Inc. in 1994.

9/ Company indicated it is strictly a reseller.

10/ Excludes \$261 million from marketing services in 1996 and \$143 million in 1995. Marketing revenues were included in the 1994 total.

11/ Name changed from U. S. Long Distance, Inc. in September 1997.

12/ Data for 1996 obtained from Annual Report to the Colorado Public Utilities Commission, which regulates telecommunications carriers pursuant to §40-15-301 C.R.S.

13/ Does not include \$10 million from non-communications operations in 1993, \$11 million in 1994, \$9 million in 1995 and \$13 million in 1996.

14/ Telesphere Network, Inc. and National Telephone Services, Inc. merged during 1989. In 1991, Telesphere Network, Inc. went into bankruptcy.

15/ Estimated by FCC staff.

MINUTES OF CALLING:

1. Dial Equipment Minutes:

As in the case of telephone lines, there are several alternative measures of calling volumes. Most subscribers purchase service with unlimited local calling. As a result, most calls are not metered and estimates of total calling are subject to wide margins of error. Periodic studies are used within the telephone industry to estimate the number of calls and calling minutes for a variety of purposes. For example, periodic studies of dial equipment minutes (DEMs) are used to estimate the proportion of calling that is interstate and to allocate costs between interstate and intrastate services.

DEMs, which are shown in Table 12.1, are measured as calls enter and leave telephone switches; therefore, two DEMs are counted for every conversation minute. The volume of local calling has grown at approximately the same rate as the number of local telephone lines. In contrast, the volume of long distance calling surged as prices fell. As a result, a greater portion of calls are long distance. Intrastate toll minutes increased from 8% of all minutes in 1980 to 11% in 1996. During that same period, interstate calling minutes increased from 8% of the total to 15%.

As shown in Table 12.2, the average telephone line is used primarily for local calling and is used somewhat less than an hour per day for all calls (local, intrastate toll, and interstate toll). The level of local calling has remained relatively constant for a long period of time despite the introduction of facsimile machines, computer modems, and other devices that use telephone lines. Increases in long distance calling have caused the total usage per line to increase from 46 minutes in 1980 to 54 minutes in 1996.

2. Switched Access Minutes:

An alternative measure of interstate calling became available in 1984. Switched access minutes are those minutes transmitted by long distance carriers that also use the distribution networks of local telephone companies. The measure includes minutes associated with ordinary long distance calls and the "open end" of WATS and 800-like calls. It excludes calls made on private telecommunications systems, on leased lines, and minutes on the "closed end" of WATS and 800-like calls. On ordinary long distance calls, minutes are counted both where the call originates and where the call terminates.

Table 12.3 shows the total number of interstate switched access minutes handled by all long distance carriers. The number of minutes has grown steadily since mid-1984, stemming from a combination of overall economic growth and price reductions. Premium minutes have grown rapidly, reflecting both strong underlying traffic growth and the conversion of offices to equal access. Non-premium minutes (principally minutes handled by AT&T's competitors in areas

where equal access has not yet been provided) continue to decline as the process of conversion to equal access nears completion.

Telephone industry traffic experts often argue that dial equipment minutes represent the best available information on the proportions of different types of calls, while access minutes are the most accurate available data on the volume of interstate calling. However, it is not clear why reported changes in access minutes are not entirely consistent with reported changes in dial equipment minutes.

TABLE 12.1

**DIAL EQUIPMENT MINUTES
(MINUTES SHOWN IN BILLIONS)**

	LOCAL	INTRASTATE TOLL	INTERSTATE TOLL	TOTAL
1980	1,458	141	133	1,733
1981	1,492	151	144	1,787
1982	1,540	158	154	1,853
1983	1,587	166	169	1,923
1984	1,639	198	208	2,045
1985	1,673	222	250	2,145
1986	1,699	237	270	2,207
1987	1,713	253	295	2,261
1988	1,795	269	321	2,384
1989	1,829	286	344	2,459
1990	1,846	298	353	2,497
1991	1,859	302	366	2,527
1992	1,929	311	381	2,622
1993	2,030	317	396	2,743
1994	2,128	327	421	2,876
1995	2,229	344	451	3,024
1996	2,407	371	487	3,266
INCREASE OVER PRIOR YEAR				
1981	2 %	7 %	8 %	3 %
1982	3	5	7	4
1983	3	5	10	4
1984	3	19	23	6
1985	2	12	20	5
1986	2	7	8	3
1987	1	7	9	2
1988	5	6	9	5
1989	2	6	7	3
1990	1	4	3	2
1991	1	1	4	1
1992	4	3	4	4
1993	5	2	4	5
1994	5	3	6	5
1995	5	5	7	5
1996	8	8	8	8
PERCENT DISTRIBUTION				
1980	84 %	8 %	8 %	100 %
1981	83	8	8	100
1982	83	9	8	100
1983	83	9	9	100
1984	80	10	10	100
1985	78	10	12	100
1986	77	11	12	100
1987	76	11	13	100
1988	75	11	13	100
1989	74	12	14	100
1990	74	12	14	100
1991	74	12	14	100
1992	74	12	15	100
1993	74	12	14	100
1994	74	11	15	100
1995	74	11	15	100
1996	74	11	15	100

SOURCE: NATIONAL EXCHANGE CARRIER ASSOCIATION.

TABLE 12.2

**LINE USAGE PER DAY
DIAL EQUIPMENT MINUTES PER LOCAL LOOP**

	LOCAL	INTRASTATE TOLL	INTERSTATE TOLL	TOTAL
1980	39	4	4	46
1981	39	4	4	46
1982	39	4	4	47
1983	39	4	4	48
1984	40	5	5	50
1985	40	5	6	51
1986	39	5	6	51
1987	38	6	7	50
1988	39	6	7	51
1989	38	6	7	51
1990	37	6	7	50
1991	37	6	7	50
1992	37	6	7	50
1993	38	6	7	51
1994	38	6	8	51
1995	38	6	8	52
1996	40	6	8	54
INCREASE OVER PRIOR YEAR				
1981	-1 %	4 %	5 %	-0 %
1982	1	3	5	2
1983	0	2	7	1
1984	1	17	21	5
1985	-1	9	17	2
1986	-0	5	6	1
1987	-3	3	5	-1
1988	1	3	5	2
1989	-2	3	4	-0
1990	-2	1	-1	-2
1991	-2	-1	1	-1
1992	1	0	1	1
1993	2	-2	1	1
1994	1	-0	3	1
1995	1	1	3	1
1996	4	4	4	4